LITE-ON SEMICONDUCTOR

SBG1030 thru SBG1045

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE **- 30** to **45** Volts
FORWARD CURRENT **- 10** Amperes

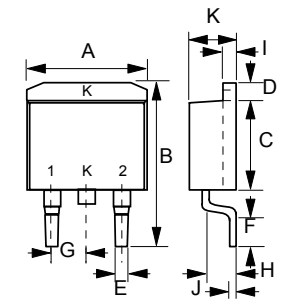
FEATURES

- Metal of silicon rectifier,majority carrier conducton
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage,high frequency inverters,free whelling,and polarity protection applications

MECHANICAL DATA

- Case : D^2PAK molded plastic
- Polarity : As marked on the body
- Weight : 0.06 ounces, 1.7 grams

D^2PAK



D²PAK		
DIM.	MIN.	MAX.
A	9.65	10.69
B	14.60	15.88
C	8.25	9.25
D	-----	1.67
E	0.51	1.14
F	2.29	2.79
G	2.29	2.79
H	2.03	2.92
I	1.14	1.40
J	0.30	0.64
K	4.37	4.83
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60HZ, resistive or inductive load.
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	SBG1030	SBG1035	SBG1040	SBG1045	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	30	35	40	45	V
Maximum RMS Voltage	V_{RMS}	21	24.5	28	31.5	V
Maximum DC Blocking Voltage	V_{DC}	30	35	40	45	V
Maximum Average Forward Rectified Current (See Fig.1) @T_C=95℃	$I_{(AV)}$	10				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD)	I_{FSM}	250				A
Maximum Forward Voltage at 5A DC (Note 1)	V_F	0.60				V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T_J =25°C @T_J =100°C	I_R	1.0 50				mA
Typical Junction Capacitance (Note 2)	C_J	280				pF
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	3.0				°C/W
Operating Temperature Range	T_J	-55 to +125				℃
Storage Temperature Range	T_{STG}	-55 to +150				℃

NOTES : 1. 300us Pulse Width, 2% Duty Cycle.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3.Thermal Resistance Junction to Case.

REV. 4, Sep-2009, KTHB01

FIG.1 - FORWARD CURRENT DERATING CURVE

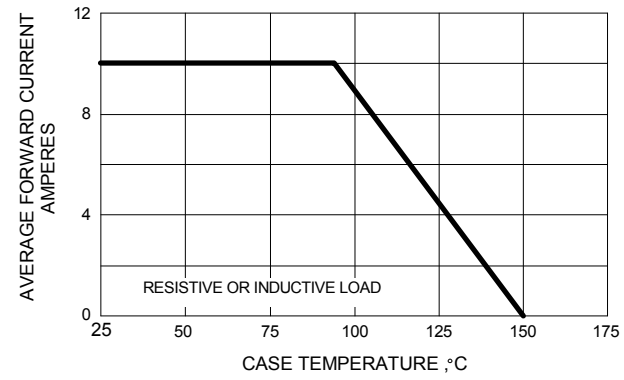


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

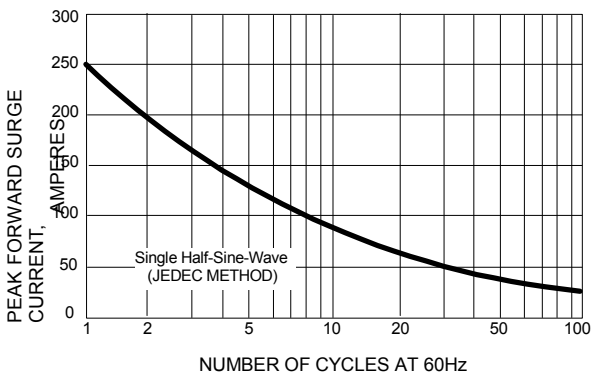


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

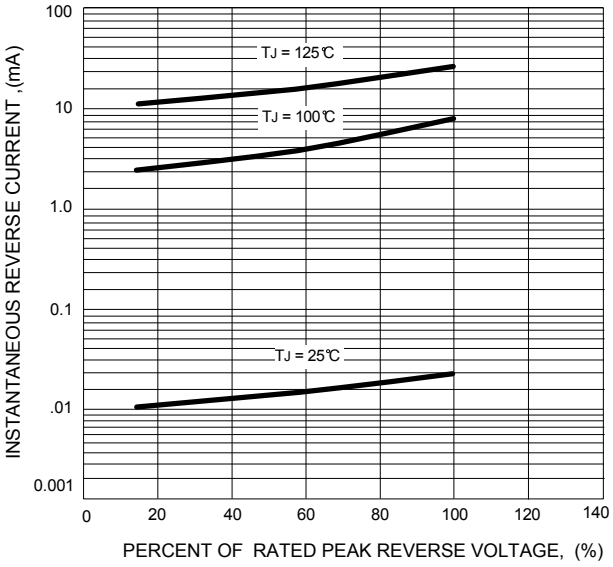


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

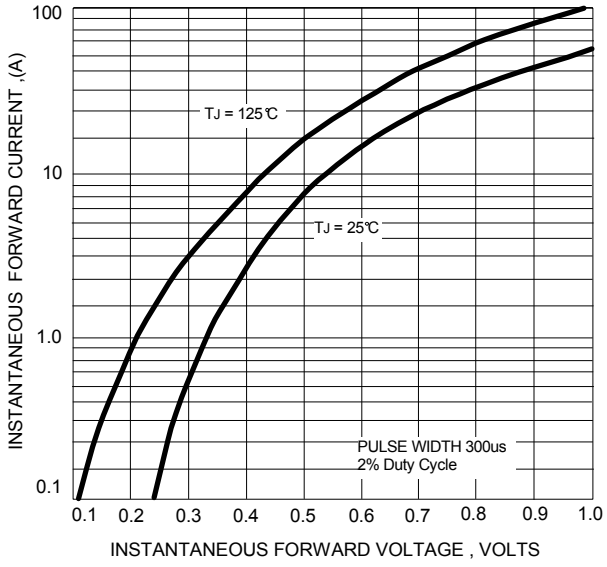


FIG.5 - TYPICAL JUNCTION CAPACITANCE